

Claims

1. -12. (cancelled)

13. (new) A system for generating automation code from a description enriched with control-relevant information, wherein in the description are components described, wherein the components having ports and being represented by at least one functional module, wherein

input/output information is mapped to the ports, wherein the input/output information stems from directed relationships between the components, wherein the input/output information is included in the description, wherein

signals provided for a transmission via the ports of the components are associated with the functional modules, the system comprising:

a first mechanism for defining metainformation for the signals; and

a code generator for generating automation code by interconnecting the signals.

14. (new) The system according to claim 13, wherein the system is provided for generating automation code for manufacturing and/or processing plants.

15. (new) The system according to claim 13, wherein a drawing having control-relevant information is provided as description.

16. (new) The system according to claim 14, wherein a drawing having control-relevant information is provided as description.

17. (new) The system according to claim 13, further comprising

a mechanism for inputting control-relevant information for use as description.

18. (new) The system according to claim 14, further comprising a mechanism for inputting control-relevant information for use as description.

19. (new) The system according to claim 13, wherein a material flow, and/or energy flow, and/or information flow in a manufacturing and/or processing plant is provided as a basis for mapping the directed relationships between the components.

20. (new) The system according to claim 14, wherein a material flow, and/or energy flow, and/or information flow in a manufacturing and/or processing plant is provided as a basis for mapping the directed relationships between the components.

21. (new) The system according to claim 15, wherein a material flow, and/or energy flow, and/or information flow in a manufacturing and/or processing plant is provided as a basis for mapping the directed relationships between the components.

22. (new) The system according to claim 17, wherein a material flow, and/or energy flow, and/or information flow in a manufacturing and/or processing plant is provided as a basis for mapping the directed relationships between the components.

23. (new) The system according to claim 13, wherein the generation of automation code is provided for central and/or distributed automation solutions.

24. (new) The system according to claim 14, wherein the

generation of automation code is provided for central and/or distributed automation solutions.

25. (new) The system according to claim 15, wherein the generation of automation code is provided for central and/or distributed automation solutions.

26. (new) A method for generating automation code from at least one description enriched with control-relevant information, the method comprising:

representing components described in the descriptions by at least one functional block or building block, wherein a component having at least one port;

mapping input/output information regarding to the ports between the components, wherein the input/output information stems from directed relationships contained in the descriptions;

transmitting signals associated with the functional blocks or building blocks via the ports of the components;

defining metainformation for the signals; and

generating automation code by interconnecting the signals.

27. (new) The method according to claim 26, wherein the automation code is generated for manufacturing and/or processing plants.

28. (new) The method according to claim 26, wherein a drawing with control-relevant information is used as description.

29. (new) The method according to claim 26, wherein control-relevant information is input as description.

30. (new) The method according to claim 26, wherein a material and/or energy and/or information flow in a manufacturing and/or processing plant is used as a basis for mapping the directed relationships between the components.

31. (new) The method according to claim 26, wherein automation code is generated for central and/or distributed automation systems.

32. (new) A system for generating automation code from descriptions enriched with control-relevant information, comprising

- components described in the descriptions, the components having ports and being represented in each case by at least one functional module,
- input/output information on the ports reproduced from directed relationships between the components contained in the descriptions,
- signals associated with the functional modules, the signals being provided for transmission via the ports of the components,
- a first mechanism for defining metainformation for the signals, and
- a code generator for producing automation code through interconnection of the signals.